

## ABSTRACT

A system for driving columns of a liquid crystal display includes logic circuitry operating in a supply path between a first and a second supply voltage in which the first supply voltage is higher than the second supply voltage. The logic circuitry is capable of generating first logic signals and second logic signals whose value is equal to the first or second supply voltage. The system includes two level shifters coupled to the logic circuitry and operating in a supply path between a third supply voltage greater than the first supply voltage and the second supply voltage; the level shifters are capable of raising the value of the second logic signals. The system also includes a first and a second pair of transistors having different supply paths and having an output terminal in common; the first and the second pair of transistors are coupled to the level shifters to determine the drive signal of a column. The system includes turnoff circuitry operating in a supply path between the third and the second supply voltage and coupled to the two level shifters. The turnoff circuitry is capable of keeping one of the two pairs of transistors in a turnoff state in the period of time of a frame when the other of the two pairs of transistors is operative.